KUZNETSOV, M.I., redaktor; KUDRYAVTSEVA, L.K., tekhnicheskiy redaktor.

[Experience of stakhanovites in the cellulose and paper industry] Opyt stakhanovtsev tselliulozno-bumazhnoi promyshlennosti. No. 2. [Production of sulfite and sulfate pulps] Proizvodstvo sul'fitnoi i sul'fatnoi tselliulozy. Moskva, Goslesbumizdat. 1950. 89 p. (MLRA 7:11)

1. Soyuz rabochikh bumazhnoy promyshlennosti SSSR.
(Wood pulp industry)

KUZNETSOV, M.I., inzh.

Scraper and spoils remover. Stroi. truboprov. 7 no.12:27-28 D '62. (MIRA 16:1)

1. Gosudarstvennyy institut proyektirovaniya i izyskaniya na rechnom transporte, Moskva.
(Underwater pipelines) (Pipe-laying machinery)

SHTYRKOVA, Ye.A.; PAVEL'YEV, S.I.; KUZNETSOV, M.I.

Processing of grain raw materials in the Arzamas Starch Plant. Sakh.prom. 38 no.2:52-54 F '64. (MIRA 17:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut krakhmalo-patochnoy promyshlennosti (for Shtyrkova). 2. Arzamasskiy Krakhmal'nyy zavod (for Pavel'yev, Kuznetsov).

KUZNETSOV, M. I.

KUZNETSOV, M. I. -- "The Epizootiology of Monieziasis of Sheep under the Steppe Conditions of the Lower Volga Region." Min Agriculture USSR. All-Union Institute of Helminthology imeni Academician K. I. Skryabin (VIGIS). Moscow, 1955. (Dissertation for the Degree of Candidate in Veterinary Sciences.)

So; Knizhaya Letopis' No 3, 1956

KUZNETSOV, M.I., kand.veterinarnykh nauk

Detecting intermediate hosts of Moniezia in the steppes of the lower Volga Valley. Trudy VIGIS 6:20-23 '59. (MIRA 15:5)
(Sarpinskiy District--Moniezia--Host animals)
(Mites as carriers of disease)

KUZNETSOV, M.I., kand.veterinarnykh nauk

Dynamics of the infection of sheep of various ages with Moniezia expansa and M. benedeni and some data on their infection with Thysaniezia giardi in the lower Volga Valley. Trudy VIGIS 6:38-49 '59. (MIRA 15:5)

(Volga Valley--Cestoda)
(Parasites--Sheep)

MATEVOSYAN, Yu.M., prof.; GARIZHSKAYA, [illegible], veterinarnyy vrach;
KUZNETSOV, M.I., kand.veterinarnykh nauk

Helminths of Saiga tatarica. Trudy VIGIS 6:139-143 '59.
(MIRA 15:5)

(Parasites--Kalmyk A.S.S.R.--Saiga)
(Worms, Intestinal and parasitic)

KUZNETSOV, M.I., kand.veterinarnykh nauk

Epizootology of monieziasis in sheep in the lower Volga region. Trudy VIGIS 7:63-67 '59. (MIRA 13:11)
(Volga Valley--Sheep--Diseases and pests)
(Tapeworms)

KUZNETSOV, M.I., kand.veterinarnykh nauk

Some information on types of oribatid mites and their seasonal dynamics in the lower Volga Steppes. Trudy VIGIS 7:111-124 '59. (MIRA 13:11)
(Volga Valley--Mites) (Sheep--Diseases and pests)

UZENKOSOV, M.I.

Role of saiga in the epizootology of monieziasis of sheep in steppes of the lower Volga Valley. Zool.zhur. 38 no.6:948-950 Je '59. (MIRA 12:11)

1. All-Union Insitute of Helmintology, Moscow.
(Volga Valley--Tapeworms) (Saiga as carrier of disease)
(Parasites--Sheep)

KUZNETSOV, Mikhail Ivanovich, agronom; MIKHNEVICH, A.Ye., red.; TSYURKO, M.I., tekhn. red.

[Sorgo as a valuable forage crop] Sorgo - tsennoe kormovoe rastenie. Orenburg, Orenburgskoe knizhnoe izd-vo, 1960. 23 p. (MIRA 14:10)
(Sorghum) (Forage plants)

KUZNETSOV, M. I. (Candidate of Veterinary Sciences, All-Union Institute of Helminthology, imeni Academician K. I. Skryabin)

"About intermidiate hosts of pathogens of thysanieziosis and Avitellinae infection of sheep"

Veterinariya, vol. 39, no. 7 , July 1962 p. 46

SHUMAKOVICH, Ye.Ye., prof.; KUZNETSOV, M.I., kand. veter. nauk; NIKITIN, V.F., kand. veter. nauk

Epizootiology of coenurosis and echinococcosis of farm animals in the lower and middle Volga Valley. Trudy VIGIS 10:82-97 '63. (MIRA 17:9)

KUZNETSOV, M.I., kand. veterinarnykh nauk

Intermediate hosts of Thysaniezia and Avitellina: preliminary report. Trudy VIGIS 10:5-8 '63. (MIRA 17:9)

BLINOV, V.A.; DMITRIYEV, V.N.; KUZNETSOV, M.I.

Use of a gamma-spectrometer for summing coincidences in analysing a mixture of radioisotopes. Atom. energ. 19 no.4:342-346 O '65. (MIRA 18:11)

BELDOVSKAYA, I.I., inzh.; GEFDING, A.K., inzh.; KUZNETSOV, M.I., inzh.

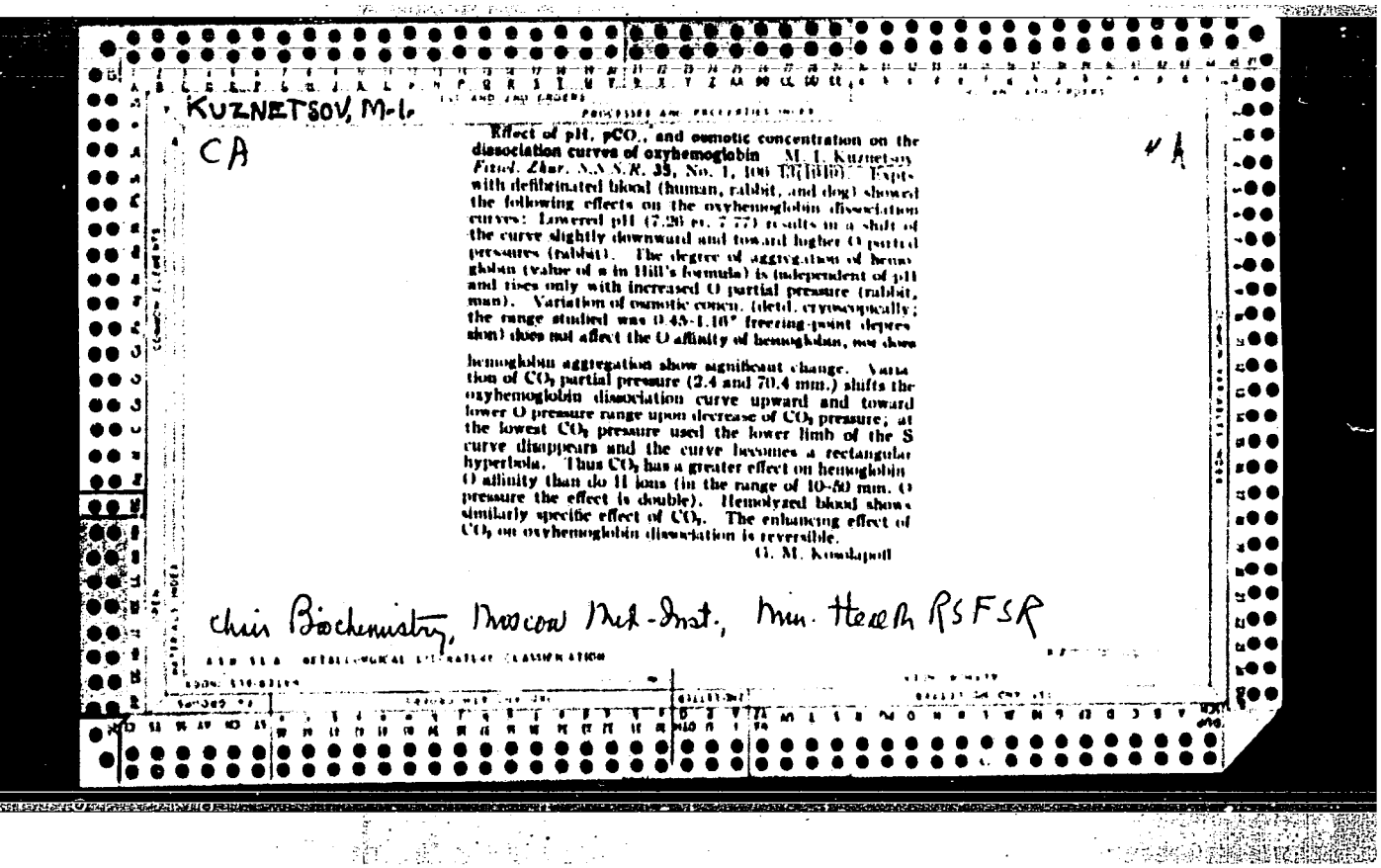
Gluing steel pipelines of sanitary engineering systems. Mont. i spets. rab. v stroi. 24 no.8:22-24 Ag '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhnicheskikh i sanitarno-tekhnicheskikh rabot Ministerstva stroitel'stva RSFSR i Trest Latsantekhmontazh.
(Epoxy resins) (Heating pipes)

ZAYKO, N.S.; KUZNETSOV, M.I.; CHELNOKOVA, N.A.

Examination of the gustatory sensitivity in man during prolonged oxygen inhalation and an appropriate dietary regimen. Biul. eksp. biol. i med. 56 no.8:11-13 Ag '63. (MIRA 17:7)

1. Iz laboratorii fiziologii i patologii organov chuvstv (zav. - prof. P.G. Snyakin) Instituta normal'noy i patologicheskoy fiziologii (direktor - deystvitel'nyy chlen AMN SSSR prof. V.V. Parin) AMN SSSR, Moskva. Predstavleno deystvitel'nym chlenom AMN SSSR V.V. Parinym.



KUZNETSOV, M-I.

CA

Effect of pH, pCO_2, and osmotic concentration on the dissociation curves of oxyhemoglobin M. I. Kuznetsov. *Fiziol. Zhur. S.S.S.R.* 35, No. 1, 100-7(1949). Expts. with defibrinated blood (human, rabbit, and dog) showed the following effects on the oxyhemoglobin dissociation curves: Lowered pH (7.20 vs. 7.77) results in a shift of the curve slightly downward and toward higher O partial pressures (rabbit). The degree of aggregation of hemoglobin (value of n in Hill's formula) is independent of pH and rises only with increased O partial pressure (rabbit, man). Variation of osmotic concn. (detd. cryoscopically; the range studied was 0.45-1.16° freezing-point depression) does not affect the O affinity of hemoglobin, nor does hemoglobin aggregation show significant change. Variation of CO_2 partial pressure (2.4 and 70.4 mm.) shifts the oxyhemoglobin dissociation curve upward and toward lower O pressure range upon decrease of CO_2 pressure; at the lowest CO_2 pressure used the lower limb of the S curve disappears and the curve becomes a rectangular hyperbola. Thus CO_2 has a greater effect on hemoglobin O affinity than do H ions (in the range of 10-50 mm. O pressure the effect is double). Hemolyzed blood shows similarly specific effect of CO_2. The enhancing effect of CO_2 on oxyhemoglobin dissociation is reversible.

G. M. Kondrat'eva

Chair Biochemistry, Moscow Med-Inst., Min. Health RSFSR

KUZNETSOV, M.I., kandidat biologicheskikh nauk

On the problem of supplying sufficient vitamin C to the body in a hot climate. Voen.-med.zhur. no.9:55-57 S '56. (MLRA 10:3)
(ASCORBIC ACID) (HEAT-PHYSIOLOGICAL EFFECT)

PETROVYKH, V.A., kand.med.nauk, polkovnik meditsinskoy sluzhby; LOBZIN, P.P., kand.tekhn.nauk, podpolkovnik intendantskoy sluzhby; UDALOV, Yu.F., kand.med.nauk, mayor meditsinskoy sluzhby; KUZNETSOV, M.I., kand. biol.nauk

Preflight nourishment for the aviator. Voen.-med.zhur. no.7:80 Jl '57. (MIRA 11:1)

(AIR PILOTS--DISEASES AND HYGIENE)

17(9,11) SOV/177-58-7-21/28

AUTHORS: Kuznetsov, M.I., Candidate of Biological Sciences
Petrovykh, V.A., Candidate of Medical Sciences, Colonel of the Medical Corps; Lobzin, P.P., Candidate of Technical Sciences, Lieutenant-Colonel of the Commissary Corps; and Kudrova, R.V.

TITLE: Feeding the Flight Crew While Wearing Oxygen Masks on Board the Plane

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, p 82 (USSR)

ABSTRACT: The authors worked out a recipe for a food mixture and a method of feeding pilots with the oxygen mask on while on board the plane at high altitudes. Strained food, rich in calories, is sucked up by the pilot via a rubber tube which leads into the mouth thru a valve, thus guaranteeing the hermetic sealing of the mask.

Card 1/1

1778. EFFECT OF INCREASED AMBIENT TEMPERATURE ON METABOLISM OF CERTAIN VITAMINS IN THE ORGANISM (Russian text) - Kuznetsov M. I. and Udalov Yu. F. Moscow - VOPR. PIT. 1958. 17/1 (18-24) Illus. 5

After a stay under high temperature conditions, the ascorbic acid content in the human blood plasma was reduced to 0.30-0.90 mg./100 ml. With additional daily introduction into the ration of 140 mg. vit. C, 2 mg. vit. B_1 and 2 mg. vit. B_2, the ascorbic acid content of the blood plasma was raised to the original normal levels (0.087-1.27 mg./100 ml.). Discontinuance of the supplementary intake of vit. C now brought about in 7 days a still greater reduction of the ascorbic acid level in the blood plasma (0.17 to 0.31 mg./100 ml.). It can be presumed that in the period of acclimatization to a high outside temperature, the human organism's requirement in vit. C is heightened. Also determined was the daily excretion of vit. B_1 and B_2 in the urine. After 8 or 10 days' stay under high temperature conditions, the daily excretion of vit. B_1 and B_2 in the urine reached extremely low levels (8 to 18 μg. B_1 and 7.5 to 32 μg. B_2), which indicates unsatisfactory provision of the organism with these vitamins. After supplementary intake of vitamins during 8 days, their daily excretion became considerably greater (23 to 45 μg. B_1 and 96 to 119 μg. B_2): for vit. B_1, however, it did not reach levels indicating satisfactory provision of the organism (100 to 150 μg.). The reduction of excretions of vit. B_1 and B_2 in a short period of discontinuance of supplementary intake of vitamins shows that supplementary vitamin intake must be administered in a hot climate systematically and over a fairly lengthy period. In the period of human acclimatization, an adverse effect of hot climate on the metabolism of vit. C, B_1 and B_2 is manifested. Overheating can bring about earlier appearance of the symptoms of deficiency of vit. B_1 and B_2, if the content of these vitamins in the ration is low. The enhanced requirement of the organism in vit. B_1, B_2 and C under the conditions of a hot climate is a point for consideration. References 11. Krymskii - Moscow (S)

UDALOV, Yu. F., kand. med. nauk, mayor med. sluzhby; KUZNETSOV, M.I., kand. biol. nauk; LAZUTYATSKIY, N.P., kapitan med. sluzhby.

Results of giving mass doses of vitamins to flying personnel under Arctic conditions. Voen.-med. zhur. no.1:69-71 Ja '59. (MIRA 12:3)
(AVIATORS, dis.
vitamin defic. in Arctic cond., prev. with massive vitamin ther. (Rus))
(VITAMIN DEFICIENCIES, pref. & control
in aviators in Arctic cond., prev. with massive vitamin ther. (Rus))

PETROVYKH, V.A., kand. med. nauk, polkovnik meditsinskoy sluzhby; KUZNETSOV, M.I., kand. biol. nauk; LOBZIN, P.P., kand. tekhn. nauk, podpolkovnik intendantskoy sluzhby; TER-ARUTYUNOV, G.A., kand. med. nauk, polkovnik meditsinskoy sluzhby; UDALOV, Yu.F., kand. med. nauk, mayor meditsinskoy sluzhby

Nutrition of flying personnel in hot climate. Voen. med. zhur. no.4:68-70 Ap '59. (MIRA 12:8)

(AVIATORS,
nutrition in tropic climate (Rus))
(CLIMATE,
nutrition of aviators in tropic climate (Rus))
(NUTRITION,
of aviators in tropic climate (Rus))

KUZNETSOV, M.I.; UDALOV, Yu.F.; CHELNOKOVA, N.A. (Moskva)

Effect of vibrations on the metabolism of certain vitamins in the human organism. Vop. pit. 18 no.3:14-17 My-Je '59. (MIRA 12:7)
(VITAMIN, metab.
eff. of vibrations (Rus))
(VIBRATIONS, effects,
on vitamin metab. (Rus))

UDALOV, Yu.F., mayor meditsinskoy slushby, kand.med.nauk; KUZNETSOV, M.I., kand.biol.nauk

Nutrition of flying personnel in northern latitudes. Voen.-med. zhur. no.2:72-74 F '60. (MIRA 13:5)
(AVIATION MEDICINE nutrition & diet)
(COLD CLIMATE)

KUZNETSOV, M.I.; KUDROVA, R.V.; UDALOVA, Yu.F. (Moskva)

Biochemical diagnosis of the ascorbic acid supply in the human body. Vop.pit. 20 no.2:88-94 Mr-Ap '61. (MIRA 14:6)
(ASCORBIC ACID)

ARUTYUNOV, G.A.; ANTUF'YEV, I.I.; VOROB'YEV, A.I.; KUZNETSOV, M.I.; UDALOV, Yu.F.; SHIBUNEYEV, A.G. (Moskva)

Effect of nervous strain on requirement of the body for some vitamins. Vop.pit 21 no.4:3-10 Jl-Ag '62. (MIRA 15:12)
(VITAMINS) (FATIGUE, MENTAL) (STRESS(PHYSIOLOGY))

ARUTYUNOV, G.A., polkovnik meditsinskoy sluzhby, kand. med. nauk; VOROB'YEV, N.A., mayor meditsinskoy sluzhby; KUZNETSOV, M.I., kand. biolog. nauk; UDALOV, Yu.F., podpolkovnik meditsinskoy sluzhby, kand. med. nauk

The effect of flying in supersonic aircraft on metabolism in the body of an aviator. Voen. - med. zhur. no.1:60-64 1963.
(MIRA 17:8)

ACC NR: AR6028513 (N) SOURCE CODE: UR/0398/66/000/005/V010/V010

AUTHOR: Kuznetsov, M. I.

TITLE: Floating flat catamaran for underwater engineering work

SOURCE: Ref. zh. Vodnyy transport, Abs. 5V44

REF SOURCE: Proizv.-tekhn. sb. Tekhn. upr. M-va rechn. flota RSFSR, no. 4 (48), 1965, 88-89

TOPIC TAGS: marine equipment, transportation equipment industry, transportation equipment, shipbuilding engineering, marine engineering, waterway engineering, auxiliary ship

ABSTRACT: A floating, non self-propelled, steel, flat pontoon of the catamaran type, Class "M" in the River Register of the RSFSR, is under construction by the Podvodrechstroy [Underwater River Construction Trust] for underwater engineering work. The principle overall dimensions are hull length 12.2 m, hull width 10.2 m, height of ship 10.0 m, and draft 0.9 m. The flat catamaran hull consists of two pontoons measuring 12 x 4 x 2.2 meters, rigidly connected together by a cofferdam. Each of the pontoons is subdivided into 5 compartments by watertight bulkheads. The machinery space is assigned the largest compartment in one of the pontoons, while the duty compartment is in the same compartment in the other. The machinery space contains

Card 1/2 UDC: 629.122.69

ACC NR: AR6028513

the 50 kw diesel generator, the pumps, and the boiler used for heating purposes. The crane winches and the mooring line arrangements are installed on the superstructure. A 5 ton, non-rotating crane is installed in the amidships part of the deck. Boom reach can be changed from 2.25 to 7.75 meters. The flat catamaran is equipped with the following systems: fire fighting, drainage, water heating, waste disposal. Two 200 kg bow anchors are fitted. The flat catamaran is positioned in its assigned work area and moved about on assigned ranges by an electrically driven, double drum friction winch, two electrical-manual capstans, chains and anchors. The watch aboard the flat catamaran consists of 4 men. 1 figure. Ye. Chestnov. [Translation of abstract]

SUB CODE: 13

Card 2/2

KUZNETSOV, M. I. and BARBASOV, V. A.

"Oscillation Mechanism of a Triode With a Damping Field".
Uch. Zap. Gor'kovsk. un-ta, 27, pp 84-105, 1954

Electrom motion in a damping field "grid-plate" of a flat triode is theoretically analyzed. It is proved that periodic variations of space charge occur in the specified electrode space at certain operating conditions of the tube. These oscillations are independent of the circuit and generated even if the high-frequency tube is shortcircuited. This phenomenon explains the generation of high-frequency oscillations by a triode with a damping field. (RZhFiz, No 10, 1955)

SO: Sum No 812, 6 Feb 1956

KUZNETSOV, M.I.

USSR/ Physics - Ions

Card 1/1 : Pub. 22 - 15/60

Authors : Kuznetsov, M. I.; Kukirskiy, P. I., Academician; and Perfilov, N. A.

Title : Dependence of a lithium ion charge on ion speed

Periodical : Dok. AN SSSR 100/4, 665-667, Feb 1, 1955

Abstract : Experiments were conducted to establish a law of dependence of a lithium ion charge on the velocity of the ion. The results show that the experimental equation introduced by N. Bohr, for such calculations, $\gamma v_i \sim v_e$ is correct only to a certain degree of approximation. Five references: 4 French and 1 USA (1950-1953). Graphs; table.

Institution : Acad. of Sce., USSR, The V. G. Khlopin Radiation Institute

Submitted : .....

KUZNETSOV, M.I.

One type of self-sustained oscillation of a space charge in a continuous-anode magnetron. Radiotekh.i elektron.1 no.6:785-793 Je '56. (MIRA 10:1)

(Oscillators, Electric)

KUZNETSOV, Mikhail Ivanovich; STRAKHOV, S.V., kandidat tekhnicheskikh nauk, redaktor; GAVRILOV, F.P., redaktor; OSTIROV, N.S., tekhnicheskiy redaktor

[Principles of electric engineering] Osnovy elektrotekhniki. Izd. 5-oe, perer. Pod red. S.V.Strakhova. Moskva, Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1957. 422 p. (MIRA 10:3)
(Electric engineering)

KUZNETSOV, M.I.

Stability of static conditions in double-flow plane magnetrons. Izv.vys. ucheb.zav.; radiofiz. 1 no.3:128-142 '58. (MIRA 12:1)

1. Issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete.
(Magnetrons)

06500

SOV/141-58-4-16/26

AUTHORS: Kuznetsov, M.I. and Nechayev, V.Ye.

TITLE: Oscillations of the Rotating-Wave Type in a Non-Split Anode Magnetron (Kolebaniya tipa vrashchayushcheysya volny v nerazreznom magnetrone)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1958, Nr 4, pp 126-130 (USSR)

ABSTRACT: It is known that in a cylindrical non-split anode magnetron the space charge can produce oscillations not only in the presence of a resonant tank in the anode-cathode circuit but also when the electrodes of the tube are short-circuited for the high frequencies. (Ref 1-3). Since the mechanism of such oscillations has not been adequately studied, the problem was investigated in the work described. The measurements were conducted on a specially constructed tube (Fig 1) whose anode cylinder had three circular apertures; small discs were placed into these apertures (Fig 2). The anode and cathode of the tube were short-circuited for the high frequency by means of special cylindrical mica condensers (Fig 2). The angular distances between

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Oscillations of the Rotating-Wave Type in a Non-Split Anode Magnetron

the centres of the discs were 75°, 105° and 180°. The currents induced in the measuring discs were led by means of coaxial lines of equal lengths to the inputs of a phase metering device. The input impedances of the phase metering device were equal to the characteristic impedances of the lines, P (75 Ω). The voltages at the phase-meter input had the same phase difference as the currents induced in the discs. Another pair of these voltages were applied to an electric switch which successively connected them to the input of a superheterodyne receiver; the switching frequency was 50 c/s and the receiver was fitted with three frequency changers. Block schematic of the phase meter is shown in Fig 3. The receiver was provided with an automatic frequency control in order to make the phase measurements independent of the frequency and phase variations in the magnetron. The phase measurements were recorded photographically by means of an oscillograph; some of the resulting

Oscillations of the Rotating-Wave Type in a Non-Split Anode Magnetron

oscillograms are shown in Fig 4. Errors of measurements were less than 15°. During the experiments the authors were unable to observe any axially symmetrical motion of the space charge in the magnetron. All the oscillations observed were in the form of a rotating wave, the most common and the most stable oscillation occurring for n = 2. The results of the experiments are shown in Table 1, while Table 2 contains the calculated phase differences for various values of n. It is concluded that in the above magnetron, with a cathode-anode short, only the space charge oscillations of the rotating-wave type can exist. The authors express their gratitude to T.Ya.Savicheva and A.P.Sedov for their great help in designing the phase-meter. There are 4 figures, 2 tables and 3 Soviet references, 1 of the references is translated from English.

06500

SOV/141-58-4-16/26

Oscillations of the Rotating-Wave Type in a Non-Split Anode Magnetron

ASSOCIATION: Issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Radiophysics Research Institute of the Gor'kiy University)

SUBMITTED: 23rd March 1958

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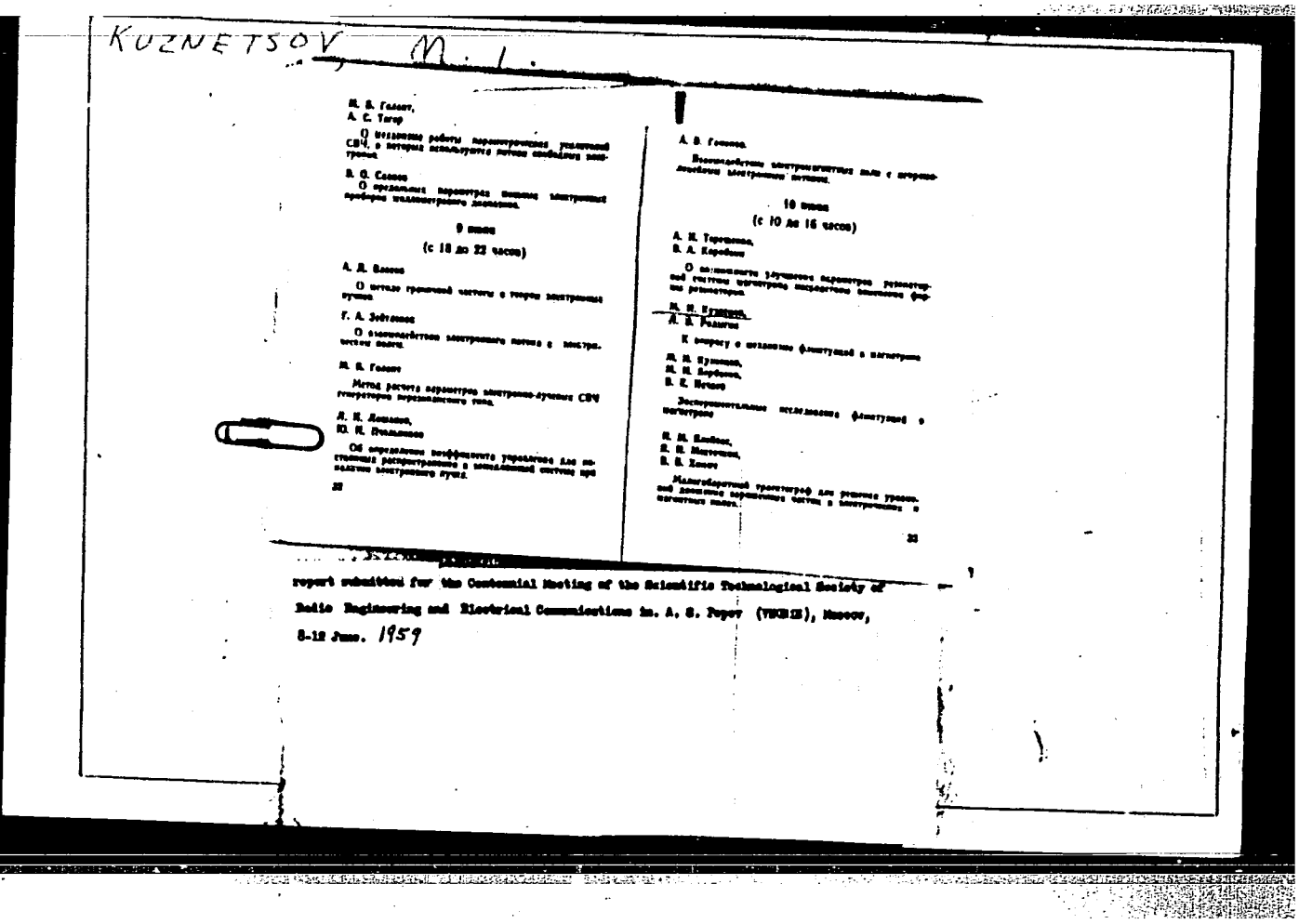

KUZNETSOV M. I.

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (NTORES), Moscow, 8-12 June. 1959

PHASE I BOOK EXPLOITATION SOV/4569

Kuznetsov, Mikhail Ivanovich, Engineer

Osnovy elektrotekhniki (Principles of Electric Engineering) 7th ed., rev. and enl. Moscow, Protekhizdat, 1960. 558 p. 200,000 copies printed.

Ed.: (Title page): S.V. Strakhov, Doctor of Technical Sciences; Ed. (Inside book): A.A. Znamenskiy; Tech. Ed.: S.I. Rakov.

PURPOSE: This is a textbook for technical, trade, railroad and mining schools. It may also be used by students in secondary polytechnic labor schools of general education with on-the-job training.

COVERAGE: The textbook has been written in accordance with the curricula of trade and technical schools and has been approved by the Uchenyy sovet po professional'no-tekhnicheskomu obrazovaniyu Glavnogo upravleniya trudovykh rezervov pri Sovete Ministrov SSSR (Academic Council for Trade and Technical Education of the Main Administration of Manpower Reserves at the Council of Ministers USSR). The book contains fundamentals on the electrostatics of d-c and its chemical effects, of thermal effects of electric fields, electromagnetics and electromagnetic induction.

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Also discussed are single-and three-phase a-c transformers, induction and synchronous motors, d-c machinery, rectifiers, electric measuring instruments, storage batteries, and electric drives. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

69419

S/141/60/003/01/011/020
E192/E582

9.4210

AUTHORS: Berbasov, V.A., Kuznetsov, M.I. and Nechayev, V.Ye.

TITLE: Investigation of the Fluctuations in Magnetrons. 19
I. Amplitude Fluctuations 35

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol 3, Nr 1, pp 102-109 (USSR)

ABSTRACT: The fluctuation spectra of the anode current in five specially designed magnetrons with various ratios of the anode-cathode diameters were investigated. The magnetrons operated in the metre wave range. A specially designed spectrum analyser was employed which permitted the spectrum to be observed directly on the screen of a cathode ray oscillograph over a bandwidth of 20 to 180 Mc/s (Ref 7). In all the investigated tubes the internal diameter of the anode was 35 mm. The cathodes of all the tubes, except one which had a tungsten filament with a diameter of 0.18 mm, were of identical construction and differed only in size. The cathodes consisted of nickel cylinders coated with a layer of the double carbonate and contained heaters inside. The

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Investigation of the Fluctuations in Magnetrons. I. Amplitude Fluctuations

diameters of the cathode cylinders were 4, 11 and 17 mm. The centering of the cathodes was done with an error of 0.5 to 1 mm. In order to determine the effect of the cathode position inside the tube, the cathode having the diameter of 17 mm had two designs; in the second design, the cathode could be centred with an error of 0.1 mm with respect to the anode by means of ceramic washers. The tubes were activated and aged, and were sealed at a pressure lower than 5×10^{-7} mm Hg. In order to eliminate the possibility of obtaining the oscillations of the resonant type the anode and cathode of the experimental tubes were shorted by means of a special screen. The diagrams of two experimental tubes fitted with the screens are shown in Figs 1 and 2. The results obtained from the investigation of the fluctuations of the anode current in the magnetron having a cathode of 11 mm diameter are shown in Fig 3.

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E192/E582

Investigation of the Fluctuations in Magnetrons. I. Amplitude Fluctuations

The vertical coordinate denotes the frequency while the horizontal coordinate gives the magnetic field H in Oe-units. The "dots" in the figure denote the maxima which are due to symmetrical fluctuations while the "crosses" show the maxima which are caused by azimuthal fluctuations. Similar results were observed in all the remaining tubes. From the experiments it is concluded that a comparatively broad maximum is observed at a frequency which is lower than the cyclotron frequency. When the magnetic field intensity is near to the critical values, the maximum of the fluctuations occurs at a frequency which is about 30% lower than the cyclotron frequency. However, as the intensity of the magnetic field is increased the maximum is shifted nearer to the cyclotron frequency. Other peaks of the fluctuation spectrum have narrower

 bandwidths (5-10 Mc/s). The maximum of the spectral

Investigation of the Fluctuations in Magnetrons. I. Amplitude Fluctuations

density of the fluctuations whose frequency increases with the increase of the magnetic field cannot be explained by the non-coherent oscillations of the rotating-wave type, since such a maximum is not observed in the azimuthal current spectrum. It is therefore necessary to assume that the maximum is a result of the natural oscillations of the symmetrical type which are excited by the fluctuation currents. The experiments showed that it is possible to excite the harmonic forced oscillations in the vicinity of the natural frequency, the oscillations being of the resonant type.

Card 4/4

There are 4 figures, 1 table and 8 references, 6 of which are Soviet and 2 English. (One of the Soviet references is translated from English).

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute of Gor'kiy University)

SUBMITTED: August 5, 1959

80873

9.4210

S/141/60/003/02/014/025
E192/E382

AUTHORS: Berbasov, V.A., Kuznetsov, M.I. and Nechayev, V.Ye.

TITLE: Investigation of the Fluctuations in a Magnetron. II Fluctuations of the Azimuthal Current

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol 3, Nr 2, pp 290 - 298 (USSR)

ABSTRACT: The fluctuation spectrum in the pre-oscillation regime in a magnetron was investigated. In the pre-oscillation regime the resonator system of the magnetron is not excited and all the segments of the anode are practically equipotential. The state of the space charge and its fluctuations should not differ substantially from the corresponding states and fluctuations in a magnetron with a non-split anode. Consequently, the fluctuations of the space charge were studied on laboratory models with non-split anodes. The measurements were carried out at decimetre and metre waves, so that they can be conducted comparatively easily and accurately. The experimental tubes (shown in Figures 1 and 2) were constructed in such a way that at the frequencies of interest the anode and the cathode of the tubes could be

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regarded as being short-circuited at high frequencies. Small apertures, whose diameter was much smaller than the length of the rotating wave of the space charge, were cut in the anode cylinders of the tubes. Measuring probe-discs were inserted into the apertures. The discs were connected to lines having the wave impedance $\rho = 75\ \Omega$. The signals were conducted by means of the lines to a receiver. The construction of one of the tubes was such as to permit the observation of the current received by the disc as well as the cathode current. The experiment showed that the spectrum of the anode current contains only one comparatively wide maximum in the vicinity of the cyclotron frequency, while the spectrum of the azimuthal current consists of a number of narrow maxima, whose position is determined with an accuracy of 10-20% by the Hartree formula. The fluctuation spectrum of the azimuthal current obtained by means of a spectrum analyser is shown in Figure 3. The Hartree curves obtained by means of Eq (4) are also plotted in Figure 3. It is seen that

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the regions of maximum intensity correspond to the Hartree lines. The fluctuations of the azimuthal current could be studied more accurately by employing the second tube whose geometry and operation conditions were nearer to the actual magnetron (Figure 2). Results of the measurements are shown in Figure 4. The maxima of the fluctuations follow the Hartree lines with an accuracy of 10%. By employing a comparatively high anode voltage, the observations could be effected over a wide frequency band and for n up to 7. From the graphs of Figure 4 it is seen that the maximum fluctuations of the azimuthal current are almost independent of the magnitude of the magnetic field. The intensity of the fluctuations is principally dependent on the anode voltage. It is interesting to compare the spectrum of the fluctuations with the spectrum of the natural oscillations in the magnetron. For this purpose, the measurements were carried out on the tube shown in Figure 1. The oscillations were excited by an external signal applied to one of the measuring discs

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through a distributed amplifier. In this way, it was possible to excite non-symmetrical oscillations in the form of rotating waves. The reaction of the space charge to the applied signal was observed on the screen of a spectrum analyser. The signal from the second measuring disc was also applied to the input of the analyser. In this way, it was possible to observe simultaneously the spectrum of the non-coherent oscillations and the reaction of the system to the external excitation. It was found that the reaction has a clearly resonant character and that the resonant frequencies coincide with the frequencies at which the maximum fluctuation amplitudes are observed. The results of this experiment are indicated in the oscillograms of Figure 5. It is interesting to compare the above experimental results with certain theoretical data. Thus, according to Harris (Ref 11), the natural frequencies of space-charge oscillations in a cylindrical magnetron can be expressed by Eqs (7), where r_e is the

Investigation of the Fluctuations in a Magnetron. II Fluctuations of the Azimuthal Current

external radius of the space-charge cloud and ω_H is the cyclotron frequency. From this formula it follows that the natural frequencies do not coincide with the Hartree lines. This is in contradiction to the experimental results. Consequently, it is concluded that the Brillouin state is not realised in a magnetron. There are 5 figures and 13 references, 12 of which are English and 1 is Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific-research Radio-physics Institute of Gor'kiy University)

SUBMITTED: July 6, 1959

Card 5/5

33227
S/141/61/004/006/014/017
E192/E382

9.4210 (1052)

AUTHORS: Kuznetsov, M.I. and Groshkov, L.M.

TITLE: Experimental measurement of the electron trajectories under static operating conditions in a cylindrical non-split-anode magnetron

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.4, no. 6, 1961, 1104 - 1120

TEXT: Measurement of the trajectories was effected by employing the method proposed by G. Müller (Ref. 1 - FTM, 1, 9, 1942), in which a fine electron ray (so-called "probe" ray) is introduced into the magnetron. The ray is parallel to its axis at the input to the tube and touches the surface of its cathode. After passing through the magnetron it impinges on a fluorescent screen whose surface is perpendicular to the axis of the tube. A bright spot is therefore produced on the screen and this can be deflected by the simultaneous action of electric and magnetic fields of the magnetron. This method was used by several authors (in particular, I. Verweel - Ref. 3: Le Vide, 67, 32, 1957) and it was found that a single-beam space-charge

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distribution (the so-called Brillouin state) occurs in the magnetron. However, since the data of Ref. 3 appeared to be insufficient, it was decided to investigate the problem more thoroughly. The experimental tube employed by the authors is illustrated in Fig. 2. The tube consists of:
1 - cathode; 2 - anode; 3 - fluorescent screen; 4 - electron gun; 5 - collimator tube; 6 - cathode-covering cup; 7 - mica spacer; 8 - quartz tube; 9 - grid, covering the screen 10 - heater and 11 - cathode of the electron gun. The probe ray is introduced into the inter-electrode space through the long collimator tube of diameter 0.5 mm, length 35 mm and wall width 0.05 mm; this is mounted on the cathode in such a way that its axis coincides with the generatrix of the cylindrical cathode. The electrons of the ray enter the magnetron through the upper-half section of the tube, the lower half of the tube being covered. The input aperture of the collimator is situated on that portion of the cathode which is covered with an oxide layer and is at a distance of 17 mm from the edge of the oxide coating.

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Experimental measurement of ....

The cathode of the magnetron is 18 mm in diameter and 195 mm long; its core is made of a nickel tube, 0.1 mm thick. The cathode is fixed inside the anode cylinder by means of cup-like spacers. The anode is in the form of a copper tube with an internal diameter of 64 mm; the anode also forms the envelope of the magnetron. The fluorescent screen is in the form of a glass disc covered with willemite. The electron gun of the probe ray is fixed on the cathode cup of the magnetron. Before the actual experiments were carried out the experimental magnetron was investigated and it was concluded that the electron trajectories could be measured with an error not exceeding 15-20%. First, the trajectories of electrons were determined for the conditions of a complete space charge. It was found from these that a single-beam space-charge state was absent from a cylindrical magnetron operating under static conditions. It was possible to construct the potential distribution curves as a function of the radius r on the basis of the experimentally taken trajectories. Some of these are shown in Fig. 10, where Curve 1 is for the anode voltage V_a = 750 V and Curve 2 is for

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V_a = 600 V; the crosses indicate experimental points. It is concluded from such data that a bidromic space-charge condition with single-loop trajectories cannot exist in the magnetron operating under static conditions. On the other hand, it can be assumed that a bidromic space-charge state can exist with two virtual cathodes; this situation is illustrated in Fig. 1б. This possibility was verified experimentally and compared with theoretical results. It was found that the bidromic state with 2 virtual cathodes does exist in a long magnetron. The experiments also showed that the potential distribution in the space-charge cloud did not differ appreciably from the Brillouin distribution; this follows not only from the present experiments but also from measurements carried out earlier by one of the authors (Ref. 4 Izv. vyssh. uch. zav. Radiofizika, 2, 748, 1959). The electron trajectories in the upper portion of the electron cloud lying above the first virtual cathode are very near to the Brillouin ones since the electrons gradually lose their radial-motion energy in this portion of the cloud. It is intended to

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E192/E382

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carry out a special investigation in order to determine accurately the trajectories and potential distribution in the upper portion of the electron cloud.
There are 15 figures, 2 tables and 8 references: 3 Soviet-bloc and 5 non-Soviet-bloc. The four English-language references mentioned are: Ref. 1: G. Müller, FTM, 1, 9, 1942; Ref. 2: R. Gvensson, Proc. IRE, 39, 838, 1951; Ref. 5: L. Brillouin, F. Bloch - Adv. in Electronics, 3, 145, 1951; Ref. 6: R. Twiss, Adv. in Electronics, 5, 247, 1953.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute of Gor'kiy University)

SUBMITTED: February 20, 1961

Card 5/5

KUZNETSOV, Mikhail Ivanovich; STRAKHOV, S.V., doktor tekhn.nauk, red.; ZNAMENSKIY, A.A., red.; TOKER, A.M., tekhn. red.

[Fundamentals of electrical engineering]Osnovy elektrotekhniki. 8. izd., stereotipnoe. Pod red. S.V.Strakhova. Moskva, Prof-tekhizdat, 1962. 559 p. (MIRA 16:2)
(Electric engineering)

KUZNETSOV, Mikhail Ivanovich; STRAKHOV, S.V., doktor tekhn. nauk, red.; ZNAMENSKIY, A.A., red.

[Principles of electrical engineering] Osnovy elektrotekhniki. 9. izd., ispr. Moskva, Vysshaia shkola, 1964. 558 p. (MIRA 17:6)

L 38202-66 EWT(1) JM

ACC NR: AP6022089 SOURCE CODE: UR/0141/66/009/003/0634/0637

AUTHOR: Kuznetsov, M. I.; Yablokov, Yu. A.

ORG: none

TITLE: Noise correlation in magnetrons under preoscillating conditions

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 634-637

TOPIC TAGS: magnetron, correlated noise, signal noise separation

ABSTRACT: A method and equipment are described which were used for qualitative determination of statistical characteristics of fluctuation in magnetrons. The J. Middleton method of dispersion diagrams was used for measuring the correlation and autocorrelation coefficients. These coefficients of noise emf's induced at various spots of an experimental model were measured. In the experimental cylindrical nonslotted magnetron (see Fig. 1): 1 - anode, 2 - cathode, 3 - ceramic washer, 4 - measuring disk; $r_a/r_c = 2.9$. Photographs are shown of the dispersion diagrams for the signals taken from the disks spaced by 105°, with $H = 2H_{crit}$. It is found that the fluctuations taken from the disks are practically coherent but phase-shifted. The magnetron noise

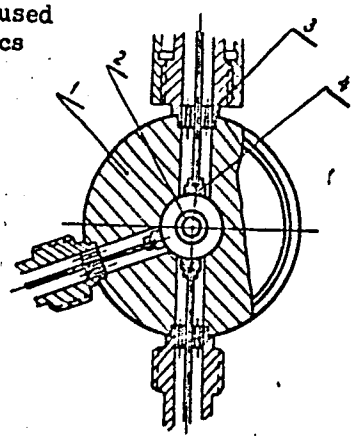

Fig. 1.

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UDC: 621.385.64

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ACC NR: AP6022089 O

fluctuations represent planar rotating space-charge waves that have slow-fluctuating amplitudes and phases. Orig. art. has: 4 figures, 4 formulas, and 2 tables. [03]

SUB CODE: 09 / SUBM DATE: 28Jan66 / ORIG REF: 001 / ATD PRESS: 5045

Card 2/2 mcp

L 25968-66 EWT(m) DIAAP

ACC NR: AP5026438 SOURCE CODE: UR/0089/65/019/004/0342/0346

38
B

AUTHOR: Blinov, V. A.; Dmitriyev, V. N.; Kuznetsov, M. I.

ORG: None

TITLE: Application of the gamma-ray spectrometer of a sum-coincidence type to the analysis of radioisotope mixtures

SOURCE: Atomnaya energiya, v. 19, no. 4, 1965, 342-346

TOPIC TAGS: gamma detection, gamma spectrometer, radioisotope, radiation measurement, gamma radiation, scintillation spectrometer, gamma ray absorption

ABSTRACT: In reviewing various methods and devices used for detection and measurement of gamma radiations, the authors chose for their experiments, the method developed by A. M. Hoogenboom (Nucl. Instrum. 3, 57, 1958). In this method, a two-crystal scintillation spectrometer was used to measure the gamma radiation emitted in cascade disintegrations. This method with improved resolution was especially suited to measure gamma coincidence spectra as well as to sum up relevant peaks. The authors adapted this method with some modifications to the analysis of radioisotope mixtures. In their arrangement (see Fig. 1 - Card 2/3) a system of fast-slow coincidences was employed. The resolving time for fast coincidences could be changed between $0{,}5\times10^{-9}$ and 5×10^{-8} sec. A

Card 1/3 UDC: 539.107

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ACC NR: AP5026438

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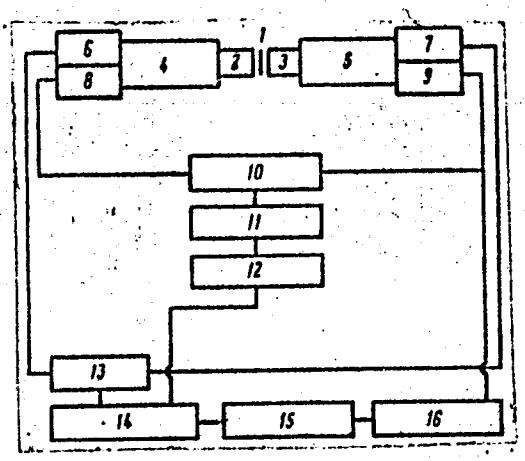

1-Sample
2 and 3 - Crystals NAI(Tl)
4 and 5 - FEU photomultipliers
6 and 7 - Pulse shapers
8 and 9 - Cathode followers
10 - Linear summator
11 - Amplifier
12 - Differential discriminator
13 - Fast coincidence device
14 - Slow coincidence device
15 - Analyzer of A1-100 type
16 - Delay line

Fig. 1

Gamma-ray spectrometer of sum-coincidence type

Card 2/3

L 25968-66

ACC NR: AP5026438 O

multi-channel analysing device checked only coinciding pulses, the sum of which represented the full energy emitted by two cascading gamma quanta. Only the full gamma absorption peaks were checked. The effect of Compton scattering was eliminated. The results of experiments are illustrated by six graphs showing the spectra obtained for Co-60, Mo-99, Ru-106, and Ce-144 isotopes. In order to reduce the back-scattering effect, the crystals are protected by lead cones. It is mentioned, however, that the lead protection could be ommitted in cases where weak samples were used. In conclusion, it is stated that this method can be applied to measurements of Ce-143, Ce-144, Mo-99, I-131, I-132, Ru-160, Ba-140, Co-60, U-235 and all other isotopes having a cascading gamma radiation. This quantative analysis can be used also for isotope disintegrations caused by the successive emissions of one electron and one gamma ray. Finally, it is also stressed, that this method could serve as a reliable tool for determining the contents of isotopes having a gamma radiation of 3 to 4 pct. of the total amount of gamma rays emitted by the mixture. Orig. art. has: 2 diagrams, 4 graphs.

SUB CODE: 20,18/ SUBM DATE: 10Oct65 / ORIG REF: 003 / OTH REF: 007

Card 3/3 FW

L 23827-66 EWT(m)/T IJP(c)

ACC NR: AP6013498 SOURCE CODE: UR/0120/66/000/002/0071/0073

AUTHOR: Blinov, V. A.; Kuznetsov, M. I.

33
B

ORG: Radium Institute, AN SSSR, Leningrad (Radiyevyy institut AN SSSR)

19

TITLE: Low-noise β-counter using a solid state anticoincidence circuit

SOURCE: Pribory i tekhnika eksperimenta, no. 2, 1966, 71-73

TOPIC TAGS: radiation counter, β counter

ABSTRACT: A compact, light-weight, low-noise β-counter, built on the basis of the DP-100 decade-counting device, is described. An STS-5 counter, surrounded by a ring of anticoincidence-coupled counters of the same type, serves as the active counter and is placed in a lead housing. During the measurement of the activity of high-energy β-sources, some of the electrons may pass through the main active counter and then through one of the protective counters, thereby activating the anticoincidence circuit. To prevent this, a plexiglass cylinder, 7—8 mm thick, is placed between the main and protective counters to cut off β-particles with an energy of up to 2 Mev. Five P16 transistors are used in the anticoincidence circuit shown in Fig. 1. Pulse amplitude of the STS-5 counter reaches 150 v and varies as a function of supply voltage. Pulse duration is 150 μsec. All diodes used in the anticoincidence circuit are either type D9B or D2E. Stable operation of the circuit is not affected

Card 1/2 UDC: 621.387

2

ACC NR: AP6013498

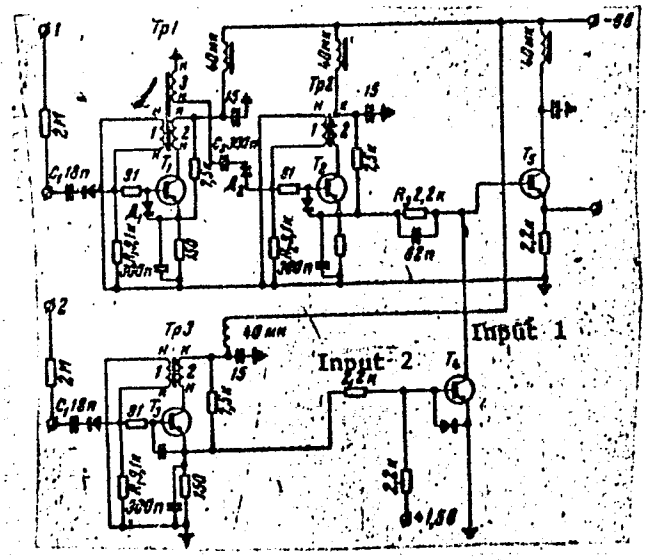

Fig. 1. Anticoincidence circuit diagram

by voltage variations of 7.5 to 10 v. The required current in the absence of a signal is about 1 ma and, when loaded with a frequency of 2—3 kc, about 10 ma. The device, which has a noise of 0.8—1 pulse/min, can be used under fixed conditions as well as under conditions of increased humidity and temperature. Orig. art. has: 4 figures and 1 table. [JR]

Card 2/2 SUB CODE: 20/ SUBM DATE: 27Aug64/ ORIG REF: 001/ OTH REF: 002/ ATD PRESS: 4247

KUZNETSOV, Mikhail Ivanovich; TEREKHIN, F.S., red.; LAGOVSKIY, G.N., red.

[Safety regulations for workers on hydraulic dredges (towed and automotive)] Pamiatka po tekhnike bezopasnosti dlia rabotaiushchikh na gidromekhanicheskikh snariadakh (plavuchikh i na avtokhodu). Moskva, Transport, 1965. 45 p. (MIRA 18:7)

BELOUSOV, Ye.F.; ZELENKIN, Yu.A.; KUZNETSOV, M.I.; GRIBANOV, L.F.

Wear resistant powder tape hard facing of metallurgical equipment. Metallurg 10 no.3:33-35 Mr '65.

(MIRA 18:5)

1. Chelyabinskiy institut NIPTIAMMASh i Chelyabinskiy metallurgicheskiy zavod.

PHASE I BOOK EXPLOITATION SOV/3523

Akademiya nauk SSSR. Radiyevyy institut

Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR, Vol. 9) Moscow, Izd-vo AN SSSR, 1959. 287 p. Errata slip inserted. 1,700 copies printed.

Ed.: N.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: G.M. Aron; Tech. Ed.: A.V. Smirnova.

PURPOSE: The volume is intended for physicists.

COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute and contains the results of studies conducted at the Institute chiefly from 1955 to 1956. There are a number of articles dealing with the study of nuclear reactions occurring with particles of different energies ranging from several eV up to hundreds of MeV. Others treat different problems of the physics of neutrons. Results of studies of various neutron sources, neutron energy distribution in a moderator (water), and other problems connected with the theory of neutron interaction with matter are presented. The majority of the articles are concerned with problems of method. The authors provide a complete description of the construction of equipment and of the results of tests performed under laboratory conditions. No personalities are mentioned. References accompany individual articles.

Card 2/4

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928120016-2"

ARTEM'YEV, Yu.M.; BARANOV, I.A.; BLINOV, M.V.; KUZNETSOV, M.I.; PROTOPOPOV, A.N.; SELITSKIY, Yu.A.; SOLOV'YEV, S.M.; SHIRYAYEV, B.M.; EYSMONT, V.P.

Low voltage neutron generator. Trudy Radiev.inst.AN SSSR 9:134-140 '59. (MIRA 14:6)

(Neutrons)

Kuznetsov M I

1

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S/056/60/038/02/11/061
B006/B011

24.6600

AUTHORS: Protopopov, A. N., Kuznetsov, M. I., Dermendzhiyev, E. G.

TITLE: Th^{232} Fission Induced by 14.9-Mev Neutrons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 2, pp. 384 - 386

TEXT: In continuation of previous papers, the authors report here on the energy characteristics of Th^{232} fissions induced by 14.9-Mev neutrons. The energy of the fragments was measured in a double ionization chamber with grids and with simultaneous recording of the amplitudes of the pulses produced by fragment pairs. The collimation angle of fragments amounted to 45°. To diminish the influence of fission anisotropy and of the motion of the fragment center of mass upon the results of measurement, the neutron beam was directed onto the target surface under an angle of 3-5°. The neutrons used for irradiation originated from T(d,n)α reactions. The 70 μg/cm² thorium target was obtained by sputtering from alcoholic thorium nitrate solution in the electric

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field on a 25-30 $\mu g/cm^2$ thick film. The further treatment was based on a method by Yu. A. Selitskiy. Purity was checked by the α-spectrum. A total of 12,500 fission events was recorded. The fragment energies were corrected for ionization defects and losses in target backing and collimator. Results are illustrated in Fig. 1. The fission probability as a function of the ratio between heavy and light fragments is shown in Fig. 2. The most probable mass ratio was at 1.43 ± 0.05, wherefrom the most probable masses of heavy and light fragments were found to be 140 ± 3 and 92 ± 3. The distribution of the entire kinetic energy of fission fragments is illustrated in Fig. 3. The half width of this energy distribution is equal to 14.6%, and the most probable kinetic energy is (157 ± 4)Mev. Fig. 4 shows the dependence of the most probable kinetic total energy of the fragments on their mass ratio. The curve distinctly shows two peaks at the mass ratios 1.32 and 1.8. Fig. 5 illustrates the dependence of the spread of energy distribution on the mass ratio. The spread maximum is found at a ratio of 1.17, a second weak increase is observable at 1.8. The maximum at 1.17 deviates from the expected one (1.32) and is probably to be explained by a spread due to the ap-

paratus. The authors finally thank Yu. A. Selitskiy for having prepared the target. There are 5 figures and 8 references: 3 Soviet and 5 American.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of the Academy of Sciences, USSR)

SUBMITTED: August 10, 1959

Card 3/3

MOISEYEV, Nikolay Fedorovich; KUZNETSOV, Mikhail Mikhaylovich; ZHILITSKIY, Ya.Z., retsenzent; TOPIL'SKIY, F.A., inzhener, redaktor; YEGORKINA, L.I., redaktor izdatel'stva; UVAROVA, A.F., tekhnicheskiy redaktor

[Machines and apparatus for the mechanization of work in orchards and vineyards] Mashiny i orudiia dlia mekhanizatsii rabot v sadakh i vinogradnikakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 352 p. (MIRA 10:9)
(Agricultural machinery)

YAKOVLEV, N.N.; Prinimali uchastiye: GURAL'NIK, R.M., vrach; KUKISHEV, S.P., vrach; KUZNETSOV, M.M., vrach; MAR'YANOVSKIY, D.M., vrach; SELIVANOVA, T.M., vrach; STEPANOVA, Ye.S., vrach; VOLKOV, V.M., shef-povar

Diet for athletes during the 17th Olympic games in Rome. Vop. pit. 20 no.3:47-51 My-Je '61. (MIRA 14:6)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta fizicheskoy kul'tury.

(ATHLETES--NUTRITION) (ROME--OLYMPIC GAMES)

KUZNETSOV, M.M.; BEGIZOV, T.Kh., traktorist; GRIGOR'YEVA, N., montazhnitsa (Novosibirsk); VITCHUKOV, N.I., svinar'

Statements by deputies. Mest. prom. i khud. promys. no.5:1 My '63. (MIRA 16:7)

1. Pervyy sekretar' Primorskogo sel'skogo krayevogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza (for Kuznetsov).
2. Kolkhoz im. Kirova, Severo-Osetinskoy ASSR (for Begizov).
3. Sovkhoz "Krasnoufimskiy" (for Vitchukov).
(Service industries)

KUZNETSOV, M.M.; SHASHKIN, A.S.; ZUYEV, V.D., inzh., retsenzent; KUNIN, P.A., inzh., red.

[Operation and adjustment of hydraulic systems of machine tools] Ekspluatatsiia i naladka gidrosistem metallorezhushchikh stankov. Moskva, Mashinostroenie, 1965. 339 p. (MIRA 18:4)

KAUFMAN, L.M., prof., doktor tekhn. nauk; KOZYREV, N.N., inzh., retsenzent; KUZNETSOV, M.M., kand. tekhn. nauk, red.

[Automatic control systems without a copying mechanisms for machine tools] Beskopirnye sistemy avtomatizatsii stankov. Izd.2., perer. i dop. Moskva, Mashinostroenie, 1965. 511 p. (MIRA 18:4)

KUZNETSOV, M. M. Cand. Tech. Sci.

Dissertation: "Design, Kinematics and Dynamics of Relieving Lathes." Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman, 19 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

KUZNETSOV, M.M., kandidat tekhnicheskikh nauk, dotsent.

Expanding the technological capacities of automatic and semiautomatic machines by means of hydraulic mechanisms and hydraulic driving of separate movements. [Trudy] MVTU no.38:121-143 '55. (MLRA 9:8)

(Machine tools--Hydraulic driving)

KUZNETSOV, M.M.

Investigating the characteristics of forces acting upon the various units of relieving lathes in the process of cutting. [Trudy] MVTU no.38:197-208 '55. (MLRA 9:8)
(Metal cutting) (Lathes)

Kuznetsov, N. N.

25(2) PHASE I BOOK EXPLOITATION SOV/2043

Moscow. Vysshaya tekhnicheskaya shkola imeni N. Ye. Baumana. Kafedra "Metallorezhushchie stanki i avtomaty"

Voprosy avtomaticheskogo proyektirovaniya [Abstract] (Problems in the Construction of Automatic Machine Tools [Collection of Articles]) Moscow, Mashgiz, 1959. 213 p. 3,200 copies printed.

Ed.: G.A. Shaumyan, Doctor of Technical Sciences, Professor; Ed. of Publishing House: A.F. Balandin; Tech. Ed.: A.F. Dvorova; Managing Ed. for Literature on Metalworking and Tool Making (Mashgiz): N.D. Beyzel'man, Engineer.

PURPOSE: This collection of articles is intended for engineers and technicians in machine-tool manufacturing.

COVERAGE: This collection of articles deals with theoretical and experimental investigations on the functioning of transmission mechanisms of single-spindle bar-stock automatic machine tools, the kinematic and dynamic design of cam mechanisms, and machining accuracy of bar-stock automatic machine tools. Investigation of relieving lathes by means of wire resistance gages, and the construction of instruments for determining the rigidity of automatic machine tools are discussed. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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GO/ks
9-18-59

KUZNETSOV, M.M., kand.tekhn.nauk

Linking mechanisms for program control. [Trudy] MVTU no.2: 148-154 '59. (MIRA 13:5)
(Automatic control)

KUZNETSOV, M.M.

Tool cabinet. Mashinostroitel' no.9:29 S '60. (MIRA 13:9)

(Tools—Storage)

KUZNETSOV, M.M.

Screwdriver for setting screws in difficult-to-reach spots. Mashinostroitel' no.11:18 N '60. (MIRA 13:10)
(Screwdrivers)

KUZNETSOV, M.M.

Die with a hinged punch and spring feeder. Kuz.-shtam. proizv. 3 no. 2:42-43 F '61. (MIRA 14:1)
(Dies (Metalworking))

KUZNETSOV, M.N., mashinist teplovoza

Technologically correct system of conducting a train is a sure way to achieve fuel economy. Elek. i tepl.tiaga 6 no.8:11-12 Ag '62. (MIRA 17:3)

1. Depo Rtishchevo Privolzhskoy dorogi.

KUZNETSOV, M.P., insh.

Shortcomings in the design of spiked slipways. Rech. transp. 17 no.1:20-21 Ja '58. (MIRA 11:3)

1. Nachal'nik Yaroslavskogo stroyuchastka V-Volzhskogo tresta Glavrechstroya.

(Docks)

KUZHETSOV, N. P.

24184 KUZHETSOV, N. P. Vliyaniye vitaminov na polovyye funktsii barana. Karakulevodstvo i zverovodstvo, 1949, No. 4, S. 24-29.

SO: Letopis, No. 32, 1949.

1. KUZNETSOV, N. P.

2. USSR (600)

4. Sheep Breeding

7. Principles of artifical insemination of sheep and increasing the vitality of the progeny obtained thereby. Trudy VIZh 20 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

KUZNETSOV, M. P. Prof.

"Artificial Insemination of Sheep in the USSR," a paper given at the 3rd International Congress on Animal Repeoduction, Cambridge, 25-30, June 1956

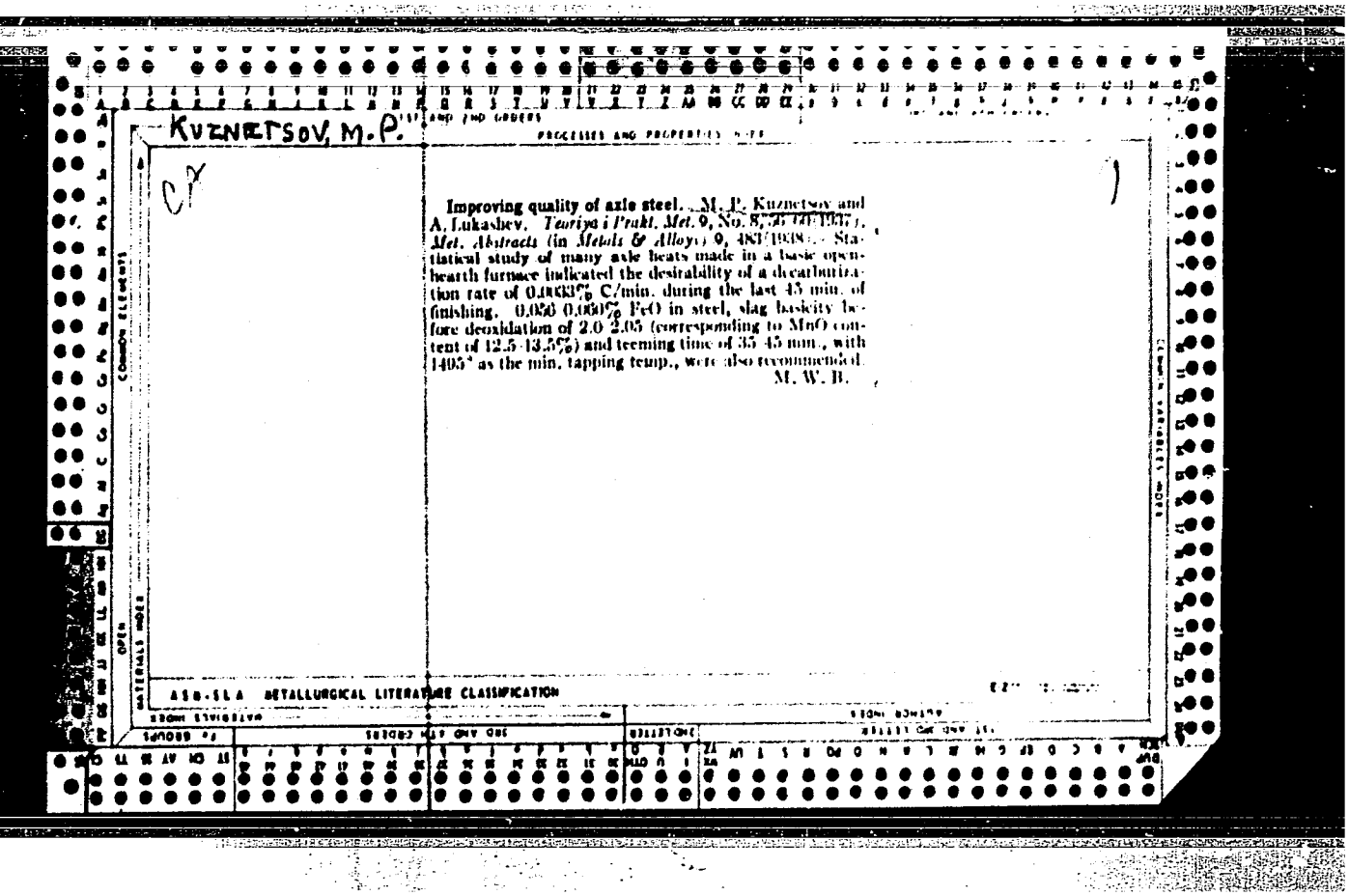
TYUPICH, M.M., kand.biolog.nauk; KUZNETSOV, M.P., kand.biolog.nauk

Simple method for determining the pregnancy of cows. Zhivotnovodstvo 22 no.7:66-68 '60. (MIRA 16:5)
(Cows) (Pregnancy--Signs and diagnosis)

SOKOLOV, B.A., inzh., red.; ZHIVOV, M.S., inzh., red.; BOL'SHAM, Ya.M., inzh., red.; KUZNETSOV, M.P., inzh., red.; ZIL'BERMAN, R.I., inzh., red.; IFTINKA, G.A., red.izd-va; MOCHALINA, Z.S., tekhn. red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroiizdat. Pt.3. Sec.I. ch.6.[Electrical systems; regulations for organizing and carrying out the work, acceptance of the works] Elektrotekhnicheskie ustroistva; pravila organizatsii i proizvodstva rabot, priemka v ekspluatatsiiu (SNiP III-I. 6-62) 1963. 134 p. (MIRA 16:10)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosudarstvennyy komitet po delam stroitel'stva SSSR (for Sokolov). 3. Mezhduvedomstvennaya komissiya po peresmotru stroitel'nykh norm i pravil Akademii stroitel'stva i arkhitektury SSSR (for Zhivov). 4. Gosudarstvennyy proyektnyy institut Ministerstva stroitel'stva RSFSR (for Bol'sham, Kuznetsov). 5. Vsesoyuznyy gosudarstvennyy proyektnyy institut Ministerstva energetiki i elektrifikatsii SSSR (for Zil'berman).
(Electric power distribution)



KUZNETSOV, M.P.

CP

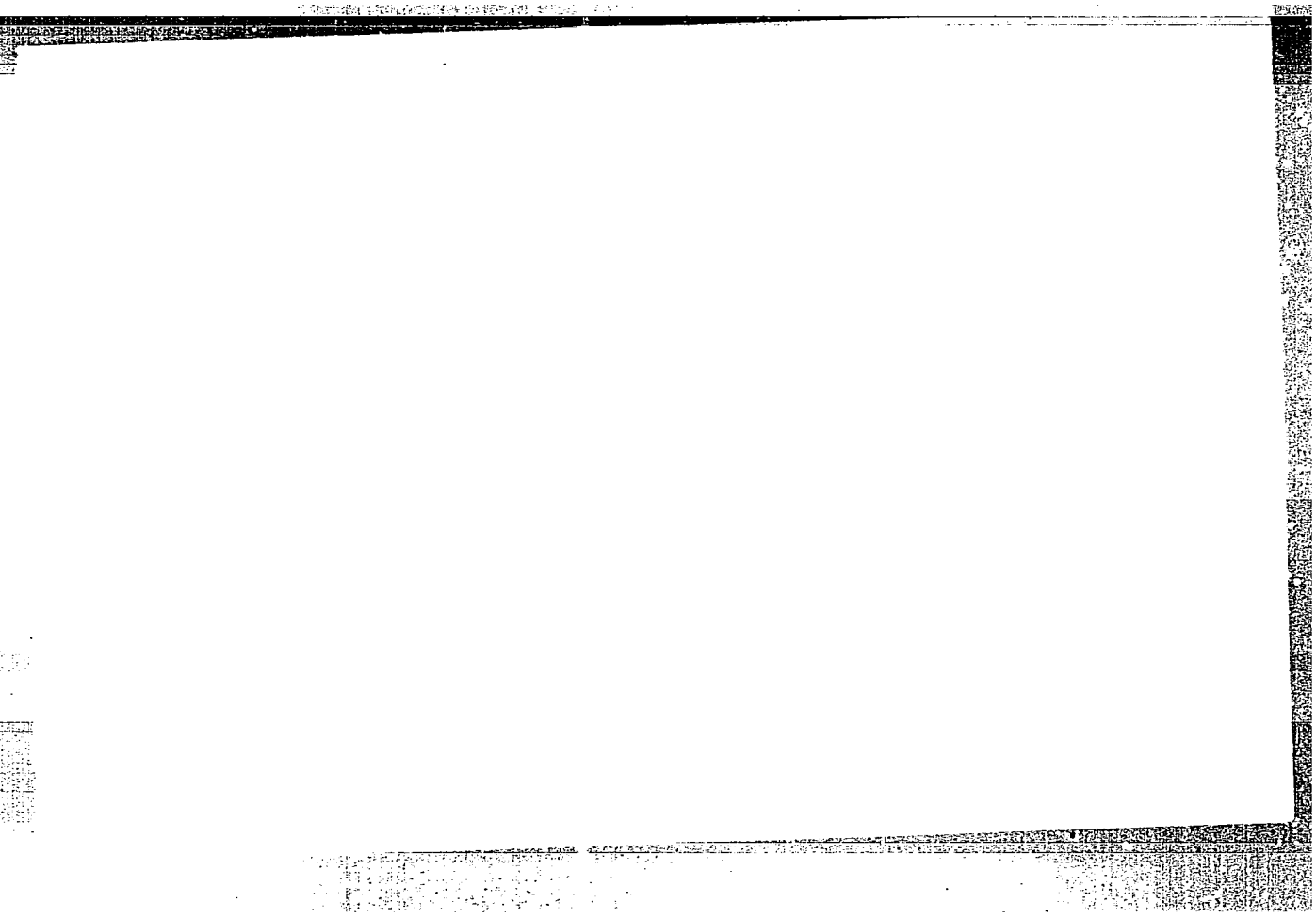
Improving quality of axle steel. M. P. Kuznetsov and A. Lukashev. *Tsvetnye i Prakt. Met.* 9, No. 8, 28–44 (1937); *Met. Abstracts* (in *Metals & Alloys*) 9, 483 (1938). Statistical study of many axle heats made in a basic open-hearth furnace indicated the desirability of a decarburization rate of 0.0[illegible]% C/min. during the last 45 min. of finishing. 0.020–0.050% FeO in steel, slag basicity before deoxidation of 2.0–2.05 (corresponding to MnO content of 12.5–13.5%) and teeming time of 35–45 min., with 1405° as the min. tapping temp., were also recommended. M. W. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Kuznetsov, M.P.

KUZNETSOV, M.P.

[Pavlo Kochetkov, expert in high speed steelmaking] Pavlo Kochetkov; maister shvydkisnoho stalevarinnia. Kyiv, 1952 . (MLRA 8:10)
(Kochetkov, Pavlo Sergiiovych, 1886-)



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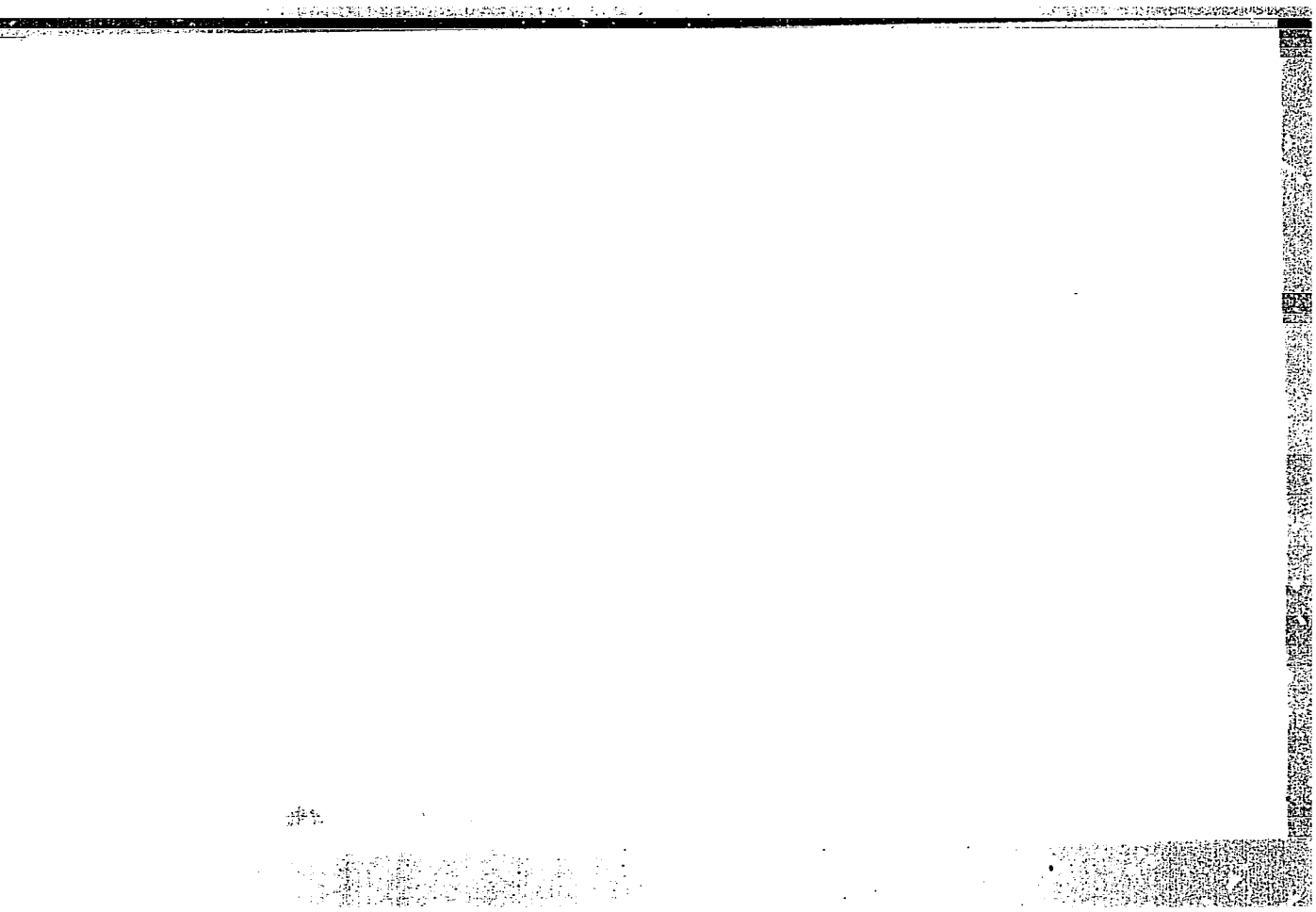

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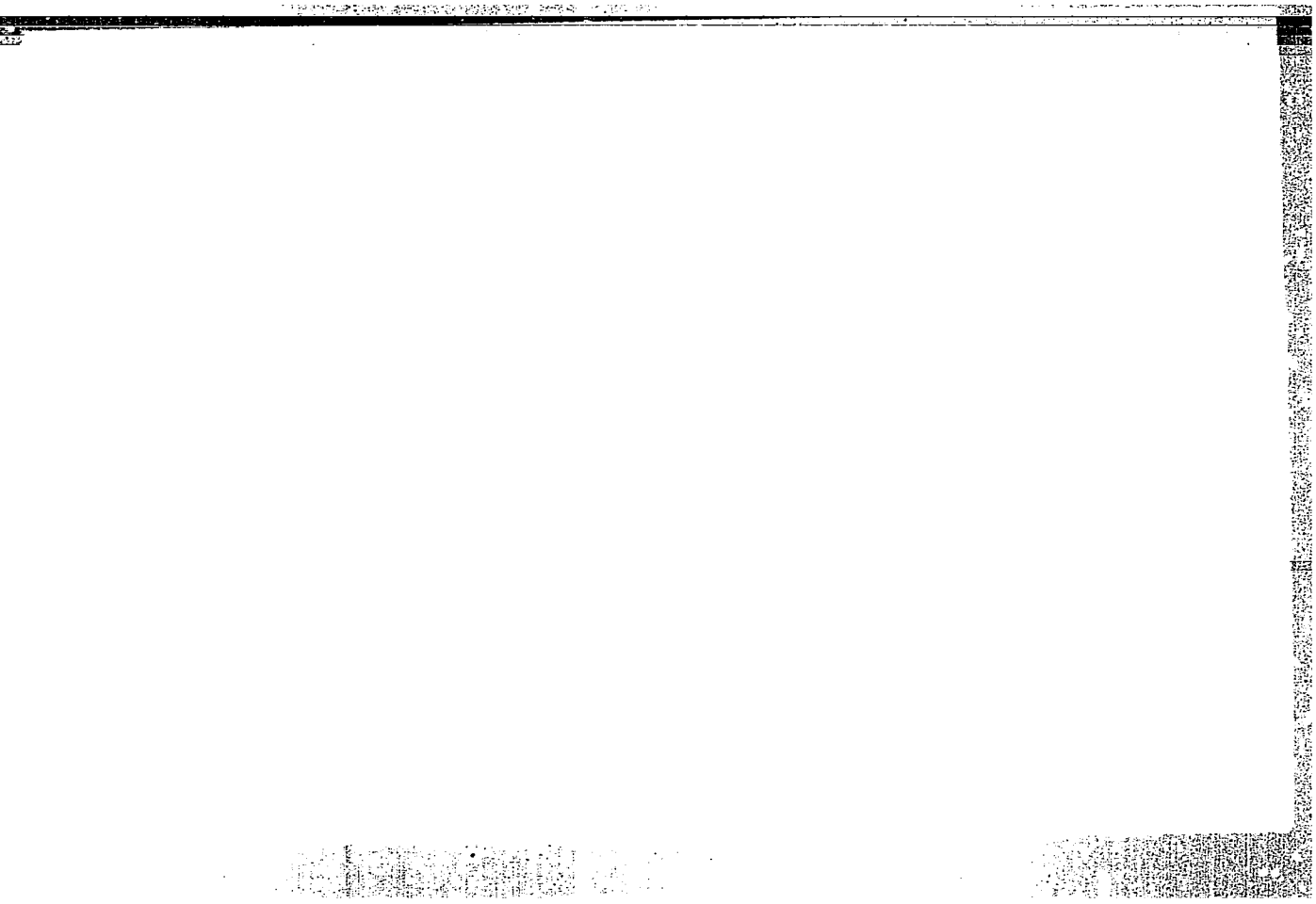

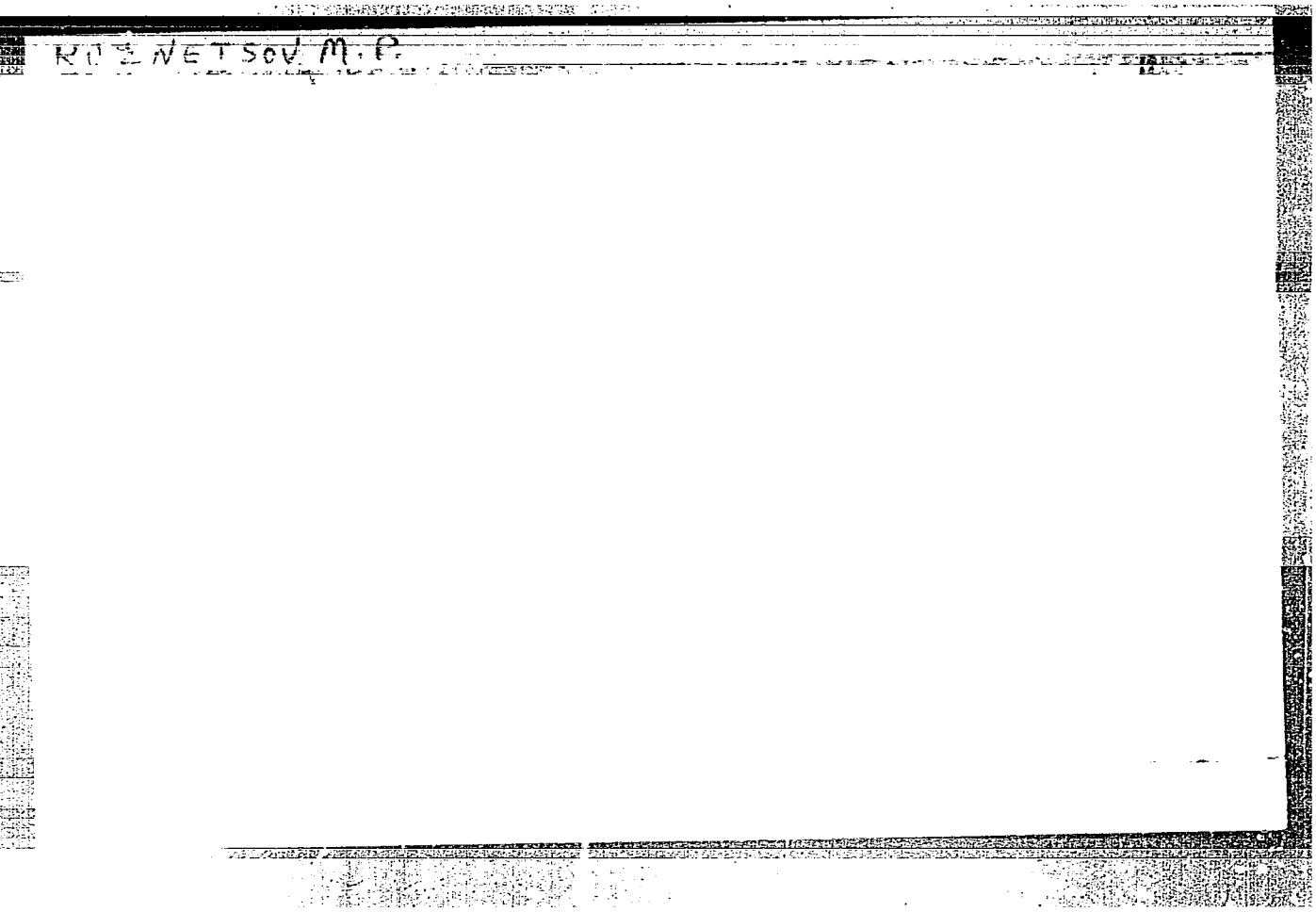

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SOV/137-58-9-18665

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 73 (USSR)

AUTHORS: Gershgorn, M.A., Kuznetsov, M.P., Dyubin, N.P.

TITLE: Top Pouring of Bessemer Rail Steel (Razlivka sverkhu bessemerovskoy rel'sovoy stali)

PERIODICAL: Byul. nauchno-tekhn. inform. Ukr. n.-i. in-t metallov, 1957, Nr 2, pp 31-44

ABSTRACT: To improve the quality of the metal, and particularly to eliminate so-called "white spots", and also to increase output in the Bessemer department of the im. Dzerzhinskiy Plant, a top-pouring method, in which basket pouring is done via intermediate ladles the volume of which is 10-15% larger than the volume of the ingot hot top, has been developed and introduced. A combined mobile arrangement for simultaneous filling of three molds has been developed. A 21.5-t heat was poured into 5 ingots in 13-14 min, as against 8-10 min with bottom pouring. Top pouring made it possible to effect the following savings per t steel: 28 kg pig iron, 2 kg Fe ore, and 2.3 kg of mold metal. The yield of first-class rails was increased from 83.2 to 88.2%, the number of internal fissures was reduced from 2.98 to 1.56%,

Card 1/2

... structure ... testing ... from 0.19 to ... 1.350. There ... flange bending tests, ... the ingots. Investiga- ... increased Si content ... spotty segregation, and in ... the pig iron ... metal reduces the ... increase in [H] and flake ... AMS alloy results in a negligible ... production of spherical inclusions. ... in the bending of rail flanges. This ... at which maximum yield of first-grade rails is ... 4. The opti- ... 5. Soaking of ingots in pits at <850° noticeably re- duces the output of first-class rails.

V.N.

Card 2/2

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